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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,681	03/18/2004	Jianbo Lu	81095831FGT1913	2680

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EXAMINER	
GIBSON, ERIC M	

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/708,681	LU ET AL.	
	Examiner	Art Unit	
	Eric M. Gibson	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/18/04; 6/14/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 6/14/2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. Specifically, foreign references DE3625025C1, DE4224887A1, and EP0295396A2 have not been considered. See attached copy.

Specification

2. The disclosure is objected to because of the following informalities:

a. The related applications listed in the first paragraph of the specification should be updated with correct US Application Numbers and Publication Numbers, if applicable.

Appropriate correction is required.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 1-30 are objected to because of the following informalities:

a. The claims are not numbered.

b. Additionally, in claim 1, "brake-steer signal" is inconsistently recited as "brake steer signal" without a hyphen. The Examiner suggests one format should be used consistently throughout the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7, 9-19, 21-26, and 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Because there are no claim numbers, all dependent claims claim dependence to claims that do not exist.

b. Claim 1 is indefinite at lines 6-9. It is unclear what is being claimed. Specifically, the controller is generating a brake-steer signal proportional to the object distance signal in response to the object detection signal *and* the object distance signal. The claim then goes on to add "in response to the brake steer signal." This part of the limitation is unclear because it is the brake steer signal that is being generated.

c. Claims 2-7 are necessarily rejected as being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. .

6. Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuno (US2001/0020217A1).

a. Per claim 1, Matsuno teaches a control system for a vehicle having a brake system including an object detection system generating an object detection signal and an object distance signal (15b, figure 1), and a controller coupled to the object detection system programmed to generate a brake-steer signal proportional to the object distance signal (page 3, [0033]).

b. Per claim 2, Matsuno teaches a direction change (yaw).

c. Per claim 3, Matsuno teaches controlling brakes to generate the turning force (page 3, [0049]).

d. Per claims 4-7, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

e. Per claim 8, Matsuno teaches a control system for a vehicle having a brake system including an object detection system generating an object detection signal and an object distance signal (15b, figure 1), and a controller coupled to the object detection system programmed to generate a brake signal proportional to the object distance signal (page 3, [0033]) and control the brake system (page 3, [0049]).

f. Per claim 9, Matsuno teaches a brake control system that applies brake signals as is well known in the art (page 3, [0049]-[0050]).

g. Per claim 10, Matsuno teaches a direction change (yaw).

h. Per claim 11, Matsuno teaches controlling brakes to generate the turning force (page 3, [0049]).

i. Per claims 12-15, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

j. Per claim 16, Matsuno teaches controlling brakes to generate the turning force (page 3, [0049]).

k. Per claims 17-18, reducing the turning radius is the result of the action being performed in the Matsuno reference.

l. Per claim 19, Matsuno teaches decreasing the drive torque of one wheel relative to another by applying the brake. This has the natural consequence of increasing the drive torque of the other wheel relative to the braked wheel.

m. Per claim 20, Matsuno teaches a method of controlling a vehicle having a brake system including an generating an object detection signal and an object distance

signal (15b, figure 1), and generating a brake signal proportional to the object distance signal (page 3, [0033]) and control the brake system to avoid the obstacle (page 4, [0070]).

n. Per claims 21 and 22, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

o. Per claim 23, reducing the turning radius is the result of the action being performed in the Matsuno reference.

p. Per claim 24, Matsuno teaches decreasing the drive torque of one wheel relative to another by applying the brake. This has the natural consequence of increasing the drive torque of the other wheel relative to the braked wheel.

q. Per claims 25 and 26, Matsuno teaches different situations where the signal is applied to the front or rear wheels (page 4, [0055]-[0058]).

r. Per claim 27, Matsuno teaches a method of controlling a vehicle having a brake system including an generating an object position signal and an object distance signal (15b, figure 1), and generating a brake signal proportional to the object distance signal (page 3, [0033]) and generating a supplemental brake signal in response to the object position signal (page 4, [0070]).

s. Per claims 28 and 29, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

t. Per claim 30, Matsuno teaches that the supplemental signal is generated in response to a yaw rate (page 3, [0033]+).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oh et al. (US006668225B2) teaches a trailer control system. Matsuno (US006567748B2) teaches a motion control system for a vehicle. Seto et al. (US006339740B1) teaches an adaptive vehicle speed control system. Yoshioka et al. (US005540298A) teaches an integrated controller for a vehicle. Thompson (US005531512A) teaches a brake system for a motor vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG

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